Figure 1

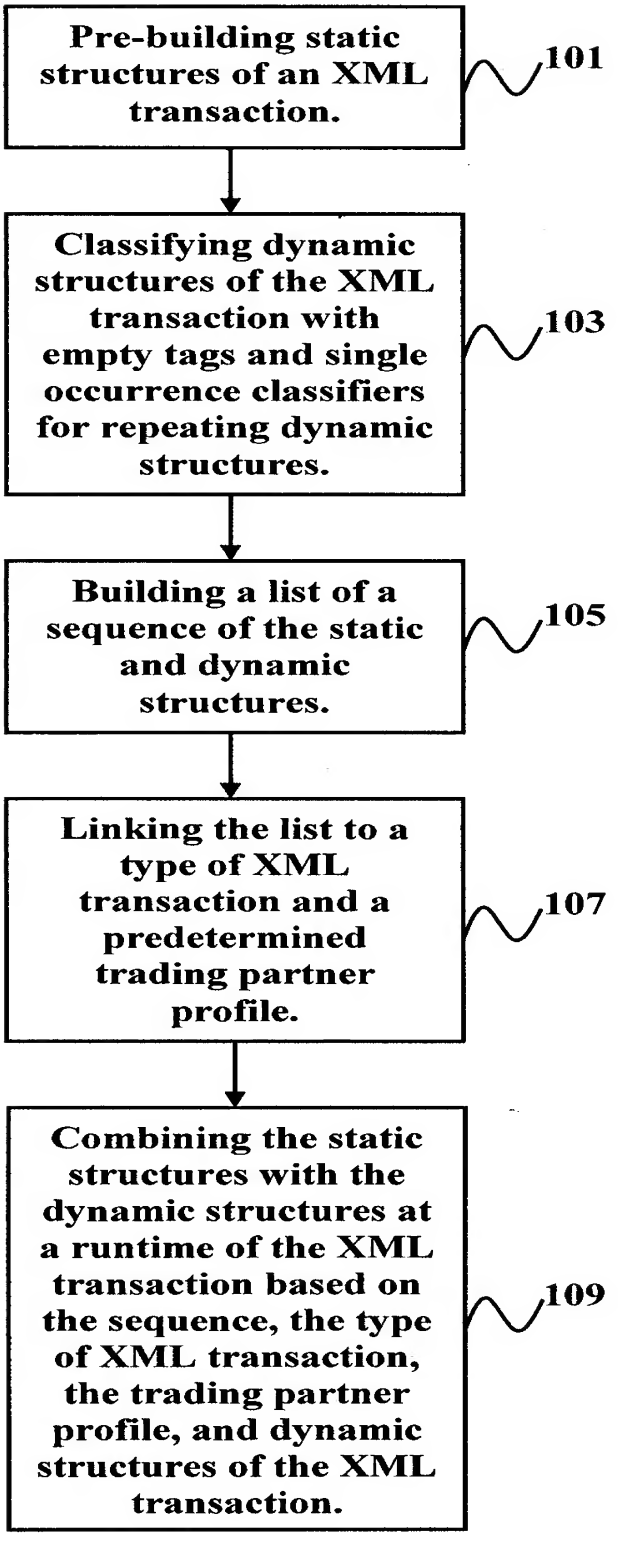

Pre-building static structures of an XML transaction.
101
Classifying dynamic structures of the XML transaction with empty tags and single occurrence classifiers for repeating dynamic structures.
103
Building a list of a sequence of the static and dynamic structures.
105
Linking the list to a type of XML transaction and a predetermined trading partner profile.
107
Combining the static structures with the dynamic structures at a runtime of the XML transaction based on the sequence, the type of XML transaction, the trading partner profile, and dynamic structures of the XML transaction.
109

Figure 2

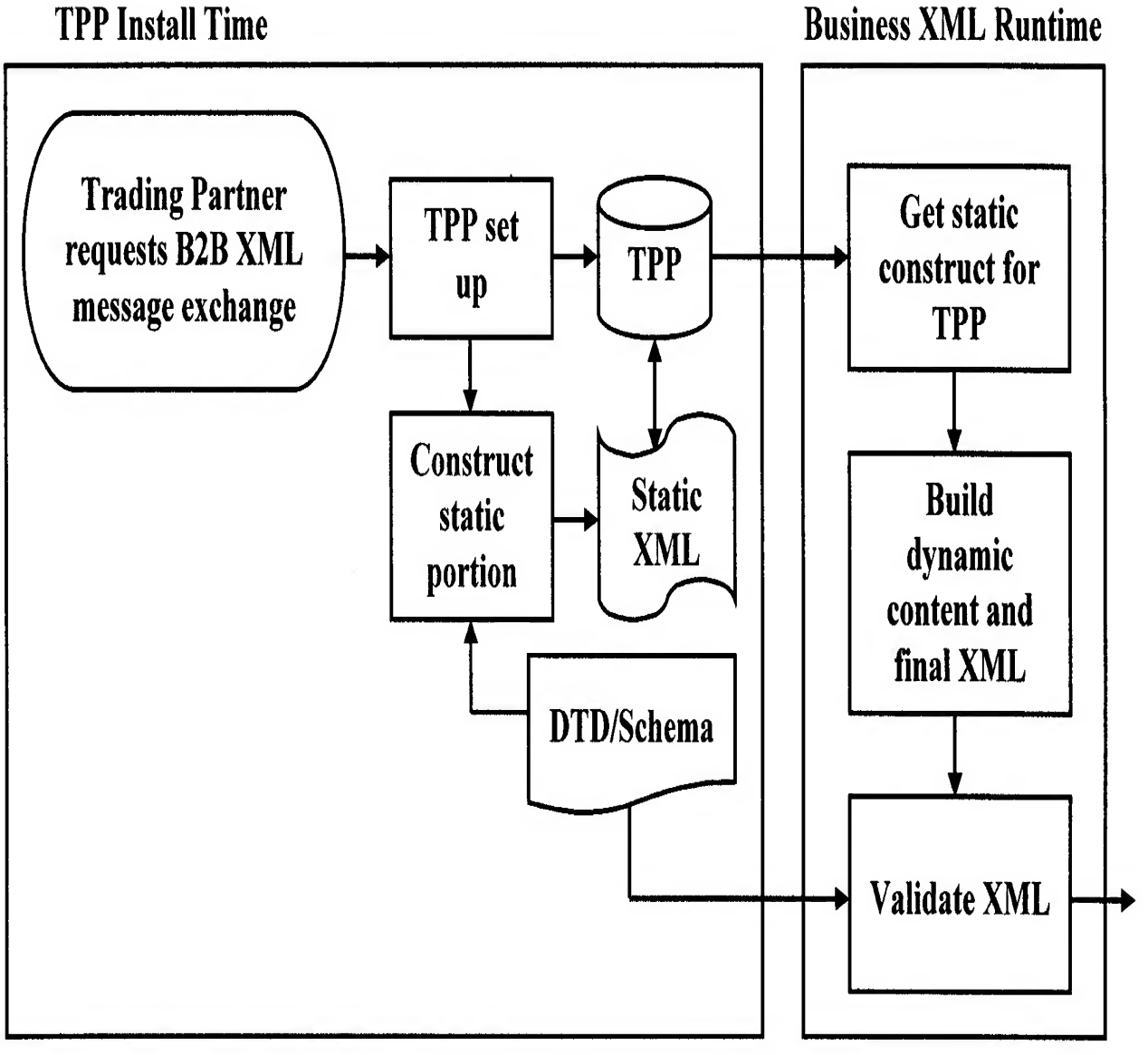

TPP Install Time
Business XML Runtime
Trading Partner requests B2B XML message exchange
TPP set up
TPP
Get static construct for TPP
Construct static portion
Static XML
Build dynamic content and final XML
DTD/Schema
Validate XML

Figure 3

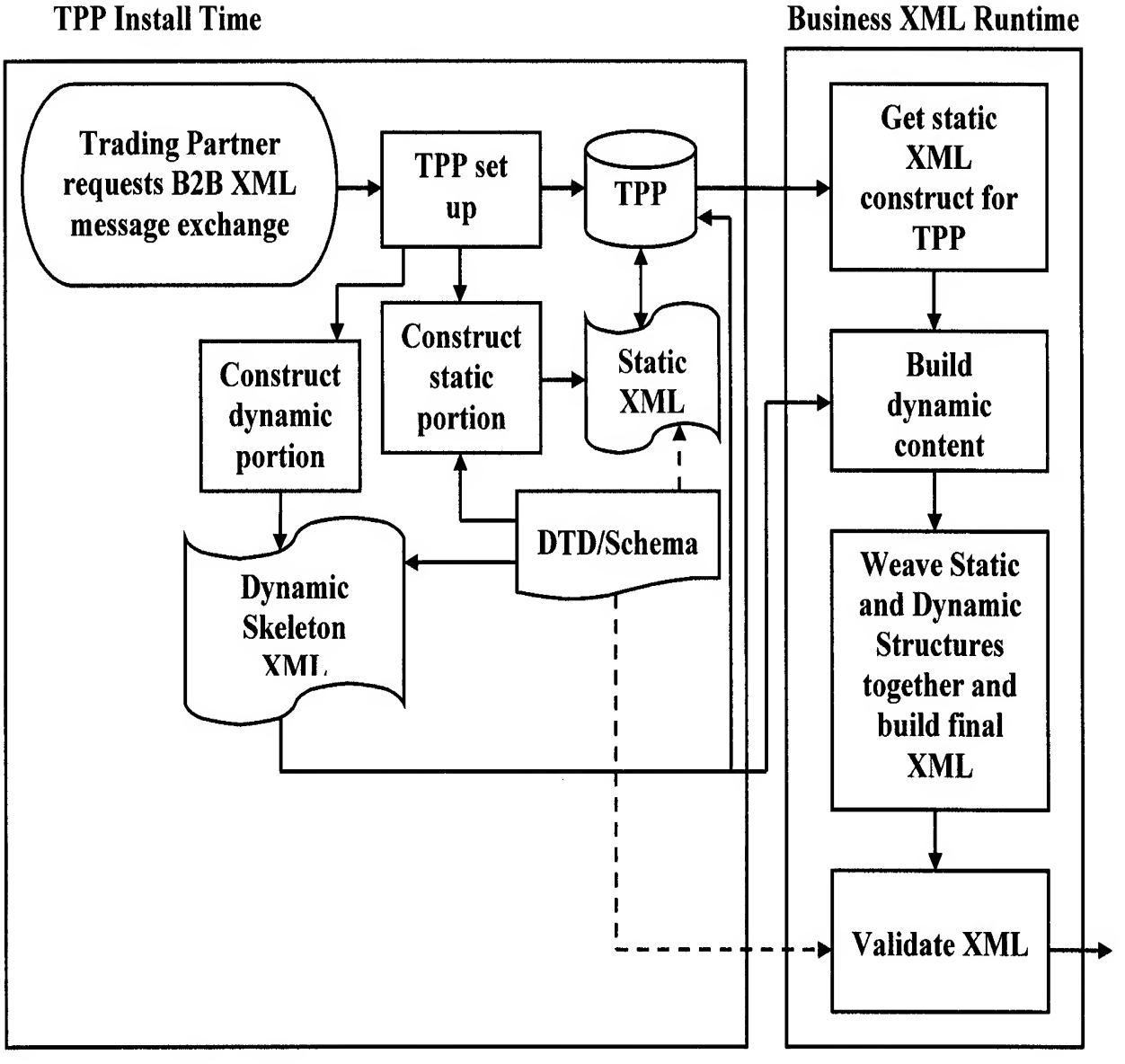

TPP Install Time
Business XML Runtime
Trading Partner requests B2B XML message exchange
TPP set up
TPP
Get static XML construct for TPP
Construct dynamic portion
Construct static portion
Static XML
Build dynamic content
DTD/Schema
Dynamic Skeleton XML
Weave Static and Dynamic Structures together and build final XML
Validate XML

Figure 4

TPP1

```
<Receiver>
  <ReceiverDescripton>
    <ContactDetail>
      <EmailAddress>someone@abc.com</EmailAddress>
      <TelephoneNumber>111-222-333-4444
      </TelephoneNumber>
    </ContactDetail>
    <PartnerRole>Shopper</PartnerRole>
    <PartnerDescription>
      <BusinessData>
        <DUNSNumber>987654321</DUNSNumber>
        <SupplyChainProduct>Modules</SupplyChainProduct>
      </BusinessData>
      <PartnerType>Vendor</PartnerType>
    </PartnerDescription>
  </ ReceiverDescripton>
</Receiver>
```

TPP2

```
<Receiver>
  <ReceiverDescripton>
    <PartnerRole>Receiver</PartnerRole>
    <PartnerDescription>
      <BusinessData>
        <DUNSNumber>987654321</DUNSNumber>
        <SupplyChainProduct>Modules</SupplyChainProduct>
      </BusinessData>
      <PartnerType>Manufacturer</PartnerType>
    </PartnerDescription>
  </ReceiverDescripton>
</Receiver>
                    :
                    :
<DocumentType>Shipment</DocumentType>
```

Figure 5

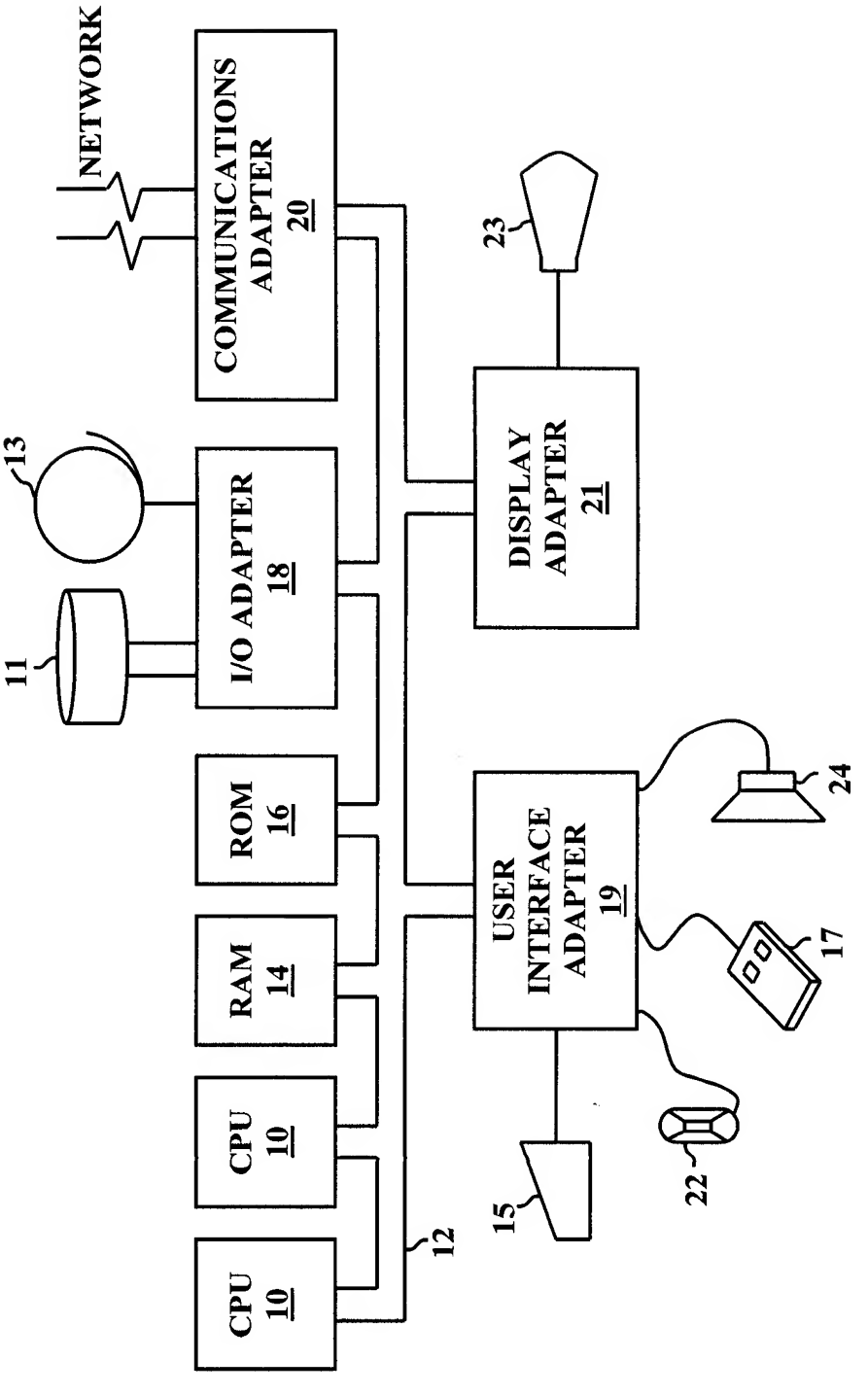
TPP Install Time

```
<Lot>
  <LotIdentifier></LotIdentifier>
  <WaferIdentifier> </WaferIdentifier>
  <LotQuantity>
    <ProductUnit> </ProductUnit>
    <ProductQuantity></ProductQuantity>
  </LotQuantity>
  <LotDateCode></LotDateCode>
</Lot>
        :
        :
```

Business XML Runtime

```
        :
<Lot>
  <LotIdentifier>OPXNT00B30</LotIdentifier>
  <WaferIdentifier>90PDG115SJF3</WaferIdentifier>
  <LotQuantity>
    <ProductUnit>Each</ProductUnit>
    <ProductQuantity>20.00</ProductQuantity>
  </LotQuantity>
  <LotDateCode>0312</LotDateCode>
</Lot>
<Lot>
  <LotIdentifier>OPXNT00B31</LotIdentifier>
  <WaferIdentifier>91PDG115SJF3</WaferIdentifier>
  <LotQuantity>
    <ProductUnit>Each</ProductUnit>
    <ProductQuantity>30.00</ProductQuantity>
  </LotQuantity>
  <LotDateCode>0412</LotDateCode>
</Lot>
        :
        :
```

Figure 6


NETWORK
COMMUNICATIONS ADAPTER 20
23
13
I/O ADAPTER 18
DISPLAY ADAPTER 21
11
ROM 16
RAM 14
USER INTERFACE ADAPTER 19
24
17
CPU 10
CPU 10
12
15
22